New meaning for NLP: the trials and tribulations of natural language processing with GPT-3 in ophthalmology

Abstract

Natural language processing (NLP) is a subfield of machine intelligence focused on the interaction of human language with computer systems. NLP has recently been discussed in the mainstream media and the literature with the advent of Generative Pre-trained Transformer 3 (GPT-3), a language model capable of producing human-like text. The release of GPT-3 has also sparked renewed interest on the applicability of NLP to contemporary healthcare problems. This article provides an overview of NLP models, with a focus on GPT-3, as well as discussion of applications specific to ophthalmology. We also outline the limitations of GPT-3 and the challenges with its integration into routine ophthalmic care.